



Early Journal Content on JSTOR, Free to Anyone in the World

This article is one of nearly 500,000 scholarly works digitized and made freely available to everyone in the world by JSTOR.

Known as the Early Journal Content, this set of works include research articles, news, letters, and other writings published in more than 200 of the oldest leading academic journals. The works date from the mid-seventeenth to the early twentieth centuries.

We encourage people to read and share the Early Journal Content openly and to tell others that this resource exists. People may post this content online or redistribute in any way for non-commercial purposes.

Read more about Early Journal Content at <http://about.jstor.org/participate-jstor/individuals/early-journal-content>.

JSTOR is a digital library of academic journals, books, and primary source objects. JSTOR helps people discover, use, and build upon a wide range of content through a powerful research and teaching platform, and preserves this content for future generations. JSTOR is part of ITHAKA, a not-for-profit organization that also includes Ithaka S+R and Portico. For more information about JSTOR, please contact support@jstor.org.

SCIENCE

FRIDAY, FEBRUARY 20, 1914

CONTENTS

<i>The Pleistocene History of the Missouri River:</i> PROFESSOR J. E. TODD	263
<i>Benjamin Osgood Peirce:</i> PROFESSOR ARTHUR GORDON WEBSTER	274
<i>The Bryant Walker Expedition of the University of Michigan:</i> PROFESSOR ALEXANDER G. RUTHVEN	277
<i>The President of the University of Illinois ...</i>	278
<i>The Carnegie Institution Expedition to Torres Straits</i>	278
<i>Scientific Notes and News</i>	279
<i>University and Educational News</i>	283
<i>Discussion and Correspondence:—</i>	
<i>The Cytological Time of Mutation in Tobacco:</i> H. K. HAYES, E. G. BEINHART.	
<i>Winter Coloration of Weasels:</i> ERNEST INGERSOLL.	
<i>Scientific Men and Phonetic Spelling:</i> DR. CHARLES P. G. SCOTT	284
<i>Scientific Books:—</i>	
<i>Dennis's Gas Analysis:</i> PROFESSOR A. H. GILL.	
<i>Keown's Mechanism, Marshall's Elementary Machine Design:</i> DR. W. H. JAMES.	
<i>Linck's Kristalographie:</i> PROFESSOR W. S. BAYLEY	286
<i>Scientific Journals and Articles</i>	289
<i>The Botanical Society of America:</i> PROFESSOR GEORGE T. MOORE	289
<i>The Joint Annual Meeting of the American Anthropological Association and the American Folk-lore Society:</i> PROFESSOR GEORGE GRANT MACCURDY	296

MBS. intended for publication and books, etc., intended for review should be sent to Professor J. McKeen Cattell, Garrison-on-Hudson, N. Y.

THE PLEISTOCENE HISTORY OF THE MISSOURI RIVER¹

ASSUMING that one whom you may honor by election to this position of vice-president is expected to bring forward something concerning his special line of research, I have chosen the theme presented as my subject. It has been my lot to study more or less for the last forty years the relations of the Missouri River to the Pleistocene Ice.

This paper proposes to set forth some facts, some of them not widely known, with theories for their explanation, and to interweave the theories with sufficient speculation to form a consistent and not improbable story.

My personal examination covers only from the mouth of the Missouri to Bismarck, N. D., consequently I speak less intelligently of the region farther north.

The Missouri is not an old river geologically speaking. It has reached maturity over most of its course, but that is the result of the softness of the rocks over which it flows, rather than of the length of time it has occupied its present course. Nor is the degree of maturity proportionate to the softness of the rocks. For example, through the Dakotas it is in very early maturity, the flood plains are narrow and the trough is narrow and has steep sides, though the rocks are very soft, while in its lower course the breadth of its trough is quite strictly proportional to the softness of the rocks forming the bed of the present

¹ Address of the vice-president and chairman of Section E, Geology and Geography, American Association for the Advancement of Science, Atlanta, December 29, 1913.